

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A computer system for identifying a target component in an apparatus that has components related in a hierarchy, the computer system comprising:

a first computer operable to execute ~~executing~~ a first application in which ~~that~~ objects represent corresponding components, wherein the first application relates the objects in both a hierarchy identifying types of components and a different hierarchy identifying information associated with objects in a type-object hierarchy;

a second computer coupled to the first computer via a network;

wherein the first computer includes ~~has~~ a message generator ~~that receives~~ operable to receive information relating to both the type hierarchy and the object hierarchy ~~type-object hierarchy information~~ from the application and that provides to provide a message with a type chain in a parent-child direction and an object chain also in the parent-child direction, wherein the type chain includes a type node associated with a target object and the object chain includes an object node associated with the target object, a combination of the type node and the object node identify the target object that corresponds to the target component, and a combination of ascendants of the type node and ascendants of the object node correspond to parent components; and

wherein the second computer has a message interpreter ~~that parses~~ operable to parse both chains to provide identification of the target component with type and object as well as identification of the parent components with types and objects.

2. **(Original)** The computer system of claim 1, wherein the first computer presents type-object hierarchy information to a first user and thereby adds type statements in a first language, and wherein the second computer presents identification of types in a second language.

3. **(Currently Amended)** The computer system of claim 1, wherein the message generator at the first computer **appends is operable to append** an identifier type to the type chain, and **appends to append** an identifier object to the object chain.

4. **(Currently Amended)** A method for identifying a target component in an apparatus that has components related in hierarchy, the method comprising:

representing the components by corresponding objects, thereby relating the objects in both a hierarchy identifying types of components and a different hierarchy identifying information associated with objects in a type-object hierarchy;

deriving a message from information for both the type hierarchy and the object hierarchy ~~the type-object hierarchy~~, the message with a type chain in a parent-child direction and an object chain also in the parent-child direction, wherein the type chain includes a type node associated with a target object and the object chain includes an object node associated with the target object, a combination of the type node and the object node identify a the target object that corresponds to the target component, and a combination of ascendants of the type node and ascendants of the object node correspond to parent components; and

parsing the message to provide identification of the target component with type and object as well as identification of the parent components with types and objects.

5. **(Original)** The method of claim 4, further comprising displaying the identification of the target component with type statements, wherein the type statements are provided locally.

6. **(Currently Amended)** A combination of complementary first and second computer program products, for use in a computer system to identify a target component of an apparatus that has a plurality of components related in hierarchy, both computer program products having a machine-readable medium storing instructions for causing data processing, instructions are distributed in the system as follows:

in the first computer program product to control a first computer, the instructions operable to represent the components by corresponding objects, and thereby to relate the objects in both a hierarchy identifying types of components and a different hierarchy identifying information associated with objects in a type-object hierarchy;

in the first computer program product, the instructions further operable to derive a message from information for both the type hierarchy and the object hierarchy ~~the type-object hierarchy~~, the message with a type chain in a parent-child direction and an object chain also in the parent-child direction, wherein the type chain includes a type node associated with a target object and the object chain includes an object node associated with the target object, a combination of the type node and the object node identify the target object that corresponds to the target component, a combination of ascendants of the type node and ascendants of the object node correspond to parent components; and

in the second computer program product to control a second computer, the instructions operable to parse the message to provide identification of the target component with type and object as well as identification of the parent components with types and objects.

7. **(Currently Amended)** A method for identifying a target **object component** by a first computer run-time environment to a second run-time environment, the method comprising:

- representing a plurality of objects by the first run-time environment, thereby relating the objects in both a hierarchy identifying types of components and a different hierarchy identifying information associated with objects in a type-object hierarchy;
- deriving a message from information for both the type hierarchy and the object hierarchy the type-object-hierarchy, the message with a type chain in a parent-child direction and an object chain also in the parent-child direction, wherein the type chain includes a type node associated with a target object and the object chain includes an object node associated with the target object, a combination of the type node and the object node identify the target object that corresponds to the target component, a combination of ascendants of the type node and ascendants of the object node correspond to parent components;
- forwarding the message to the second run-time environment; and
- parsing the message by the second run-time environment to provide identification of the target component with type and object as well as identification of the parent components with types and objects.

8. **(Original)** The method of claim 7, wherein first and second run-time environments use different object models.